

**SUPPLEMENTARY DESCRIPTION OF *HETERODISPUS LONGISETOSUS* (WOMERSLEY, 1955)
(ACARI: TARSONEMINA) A SCUTACARID SPECIES FROM MUTTON BIRD NESTS IN
SOUTHERN AUSTRALIA**

Examination of the type series of the scutacarid mite *Heterodispus longisetosus* (Womersley, 1955), showed that important morphological details were neglected in the original description. It is thus appropriate to publish a supplementary description of the well-preserved material. I should like to express my thanks to Dr David C. Lee, South Australian Museum, for putting the type series at my disposal.

Material examined: ♀-Holotype and 39 ♀-paratypes. In all there are 10 slides: slide no. N1987155: holotype- ♀ (marked) as well as further 4 ♀♀; slide no. N1987156: 2 ♀♀; slide no. N1987157: 5 ♀♀; slide no. N1987158: 4 ♀♀; slide no. N1987159: 4 ♀♀; slide no. N1987160: 5 ♀♀; slide no. N1987161: 4 ♀♀; slide no. N1987162: 4 ♀♀; slide no. N1987163: 3 ♀♀; slide no. N1987164: 4 ♀♀.

***Heterodispus longisetosus* (Womersley, 1955)**

Varietipes longisetosus Womersley, 1955: 429, Fig. 10A-B

Heterodispus longisetosus (Womersley, 1955): Mahunka 1965: 363, 381, Table 4, Fig. 13, 14; Mahunka 1967: 1299; Mahunka 1977: 96.

Supplementary description

Body size and integument: Owing to preparation, the animals are in different degrees of extension; for this reason, body length will be neglected. Clypeus width in μm : 177-247 (holotype 222); \bar{x} ($n=35$) 207; $s=20, 25$; $v=9, 78$. Width of posterior sternal plate in μm , measured on the widest part in the region of setae 3c: 90-127 (holotype 110); \bar{x} ($n=37$) 106; $s=10, 03$; $v=9, 46$. Entire body surface is finely punctated.

Dorsum (Fig. 1): Free edge of clypeus with radial stripes. Setae c1 and c2 with hair tubes. Cupulae ia and ip rounded.

Venter (Fig. 2, a): Illustration shows relative length of the ventral setae and their pinnation. Posterior genital sclerite is distinctly wider than long.

Setae: Setae ps1 and ps2 are pinnate; ps3 is present, at least half as long as ps1 and ps2, smooth (Fig. 1). Trichobothrium has a thin stalk and clubbed end with fine scales; trichobothrial setae are the same length (Fig. 3, a).

Legs: Leg I (Fig. 2, b-e): Formula of setae (solenidia in parentheses): trochanter 1, femur 2, genu 4, tibiotarsus 16 (4). Tibiotarsus distal with two setae sockets, no claw. Solenidia $\varphi_2 > \varphi_1 > \omega_2 \cong \omega_1$. Leg II (Fig. 3, b): Formula of

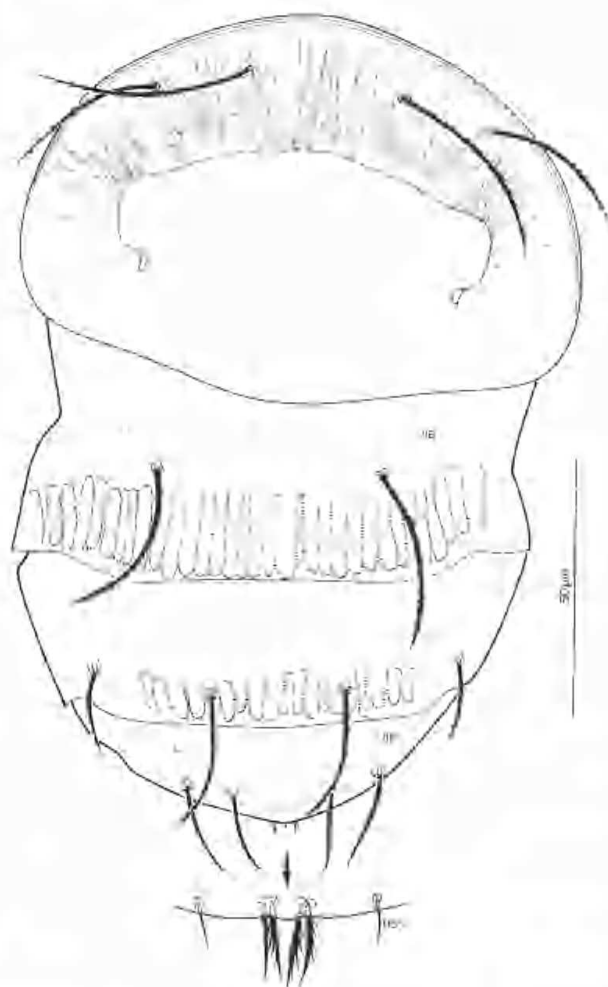


FIGURE 1. *Heterodispus longisetosus*, ♀ (holotype), dorsal view; setae ps1-ps3 in higher magnification.

setae: trochanter 1, femur 3, genu 3, tibia 4(1), Tarsus 6(1). Tarsus with small claws and pulvillus. Leg III (Fig. 3, c): Formula of setae: trochanter 1, femur 2, genu 2, tibia 4(1), Tarsus 6. Tarsus with small claws and pulvillus. Leg IV (Fig. 3, d): Formula of setae: trochanter 1, femur 2, genu 1, tibia 3, tarsus 4. Tibia and tarsus almost completely fused. Tarsus shortened; praetarsus strongly reduced, claw absent.

Variability: The material examined is not significantly variable for systematically relevant characteristics.

Systematic position

Heterodispus longisetosus resembles, mainly due to the rudimentary tarsi IV, the species *H. conquassatus* Mahunka, 1972, *H. mussardi* Mahunka, 1975 and *H. reductus* Mahunka, 1971, but differs from the first two in different positions of the setae 4a as well as in the relative length of the body setae. *H. longisetosus* differs from *H.*

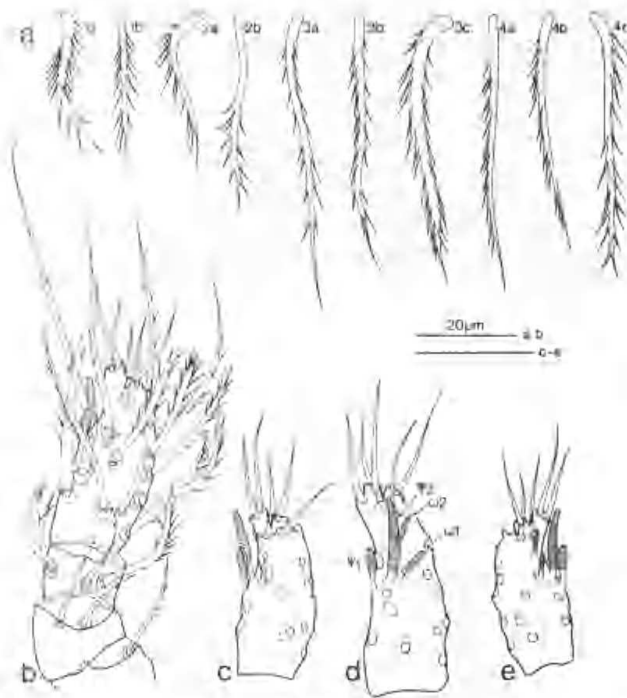


FIGURE 2. *Heterodispus longisetosus*, ♀; a, ventral setae (holotype); b, leg I in ventrolateral view; c-e, tibiotarsus I in different views (only distal setae are drawn).

reductus in the form of setae ps3 as well as in body and leg setae.

Remarks

Although the genus *Heterodispus* has only 26 species, the taxonomic problems are substantial, for the same reasons given by Ebermann (1988) for the genus *Imparipes*. The problem for the student of these species is the difficulty in differentiating new species from known material. The main reason for this is the lack of necessary details in the original descriptions. A first step to improving this situation would be generic revisions and, in some cases, supplementary descriptions of uncertain species are urgently needed. A further problem, which could also affect the genus *Heterodispus*, is that female

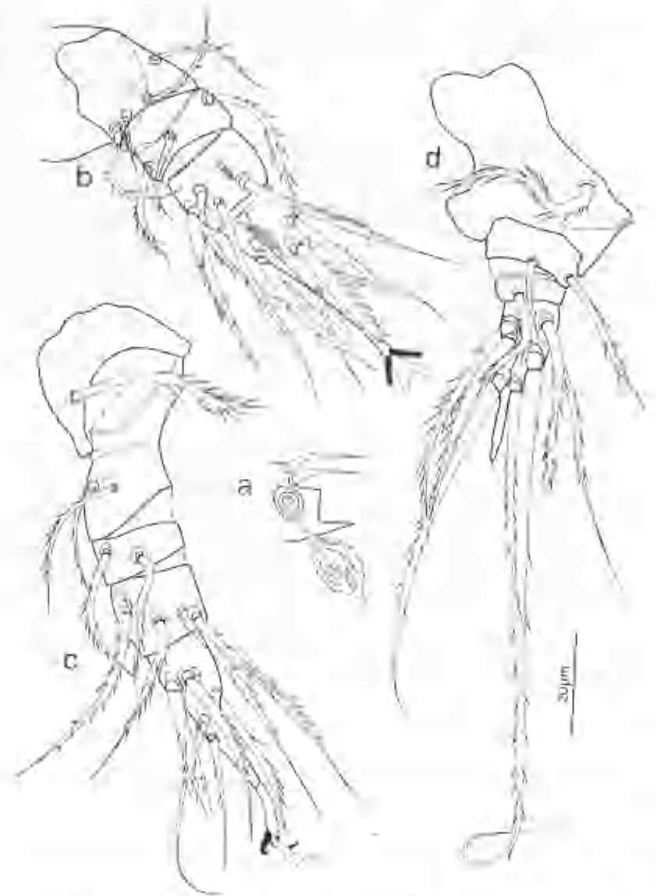


FIGURE 3. *Heterodispus longisetosus*, ♀; a, trichobothrium; b, leg II (ventral); c, leg III (ventrolateral); d, leg IV (ventrolateral). (b, c and d are drawn from various specimens.)

polymorphism occurs in scutacarids, first demonstrated by Norton (1977). New work of mine involving, among other things, the variation in the claws of leg I as well as in the setation of body and legs, has already shown a gradual and varying female dimorphism for various species of several genera (Ebermann in prep.). Female dimorphism in the genus *Heterodispus* has not yet, however, been demonstrated.

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